A Preliminary Report:

To the Washington State Legislature

From the Washington State Health Care Authority (HCA) and the Health Information Infrastructure Advisory Board (HIIAB)

As Required by SSB 5064

December 1, 2005

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Executive Summary

The Health Care Authority (HCA) is submitting this preliminary report as directed by Substitute Senate Bill 5064 (SSB 5064) and enacted as Chapter 261, Laws of 2005. SSB 5064 requires the HCA to establish and collaborate with a Health Information Infrastructure Advisory Board (HIIAB). The HCA is to "develop a strategy for the adoption and use of electronic medical records and health information technologies that are consistent with emerging standards and promote interoperability of health information systems."

The HCA with the HIIAB has adopted a set of values and design principles for this project. The principles emphasize the need for an achievable, consumer-centric plan that is implemented incrementally, aligns incentives, ensures privacy and security, and is crafted through an open and transparent process. The objective of the Washington State Health Information Infrastructure (HII) is to ensure the timely availability of relevant health information and decision support to improve the health of our citizens and the efficiency of the health care system. Specific attributes of the Washington State HII have been defined in the categories of policy, financing, governance, strategy, and architecture.

There are project challenges related to funding, organization, technology, privacy, and risk that must be overcome to successfully implement sustainable HIIs. These obstacles can be addressed with a realistic financing plan and business model; a technology approach using existing, proven tools and products; establishment of an effective process of ongoing privacy assurance; and a well defined HII development using incremental steps. The subsequent work of the HIIAB will include periodic meetings and work sessions with comprehensive stakeholder involvement, feedback and input.

The HIIAB is committed to developing a plan of action that promotes the ability of the state of Washington to rapidly, and effectively utilize health information technology for the benefit of all its citizens. The plan is intended to be both realistic and achievable, with specific and actionable recommendations directed to a wide range of health care stakeholders. While these efforts will not solve all the problems of our health care system, they are a critical foundation to provide the data necessary to achieve ongoing improvement through other initiatives.

Background and History

The origin of the National Health Information Infrastructure (NHII) concepts that can be called the electronic health record (EHR) can be traced to an Institute of Medicine (IOM) report in 1991 "An Essential Technology for Health Care."[i] This report and its revised version in 1997[ii] spurred considerable activity on the issue of health information technology (HIT). The IOM report "To Err Is Human" [iii], published in 2000, focused the attention of the nation on the pervasive problems of safety and quality in our health care system. The IOM report attributes the limited application of modern information management as a significant factor in causing these problems.

These issues have been further described and detailed in subsequent reports from the IOM[iv,v] and other national expert panels including the President's Information Technology Advisory Committee (PITAC)[vi,vii] and the Computer Science and Telecommunications Board of the National Research Council.[viii] In 2001, the National Committee on Vital and Health Statistics (NCVHS), a statutory advisory committee to the U.S. Department of Health and Human Services (DHHS), explicitly recommended development of a National Health Information Infrastructure (NHII).[ix]

By 2001, it was recognized that EHR systems would need to interconnect multiple sites of care to ensure communication and dispersement of patient information. With an EHR system, patient information could be assembled into a complete record immediately available as needed. In addition to improving the safety and quality of health care, NHII was estimated to be able to save the nation $120 billion annually, or about eight percent of current health care spending.[x] Modern information management is now clearly recognized as an essential prerequisite to improving all aspects of health care, leading the IOM committee on patient safety to conclude in 2003 that "establishing this information technology infrastructure (NHII) should be the highest priority for all health care stakeholders."[xi]

A key implementation strategy emanated from the IOM, the 2003 NHII consensus national agenda development meeting,[xii] and the Department of Health and Human Services (DHHS) Framework for Strategic Action[xiii]. The concept of building local and/or regional health information infrastructures (HIIs) to implement the organizational, financial, legal, and technical capabilities needed to interconnect all sources of health information was developed.[xiv] Since health care itself is a local activity, and the difficult sociopolitical issues related to sharing health information are well brought up at the local level, this approach seemed both pragmatic and feasible. This view has been reinforced by the early successes of a few community HII projects, such as Spokane, Washington and South Bend, Indiana.

The concept of a personal health record (PHR) has been recognized as an important component in improving health care since the NCVHS NHII Report of 2001. However, the definition of the PHR is still the subject of discussion and debate. While many existing PHR products focus exclusively on information entered by the patient,[xv] the Markle Foundation's report in 2003[xvi] defined the PHR as "an Internet-based set of tools that allows people to access and coordinate their life-long health information and make appropriate parts of it available to those who need it." It would therefore encompass patient-entered information, the EHR, and related applications needed for consumers to utilize them effectively and perform other health-related functions, such as communicating electronically with their providers.

The critical role of the consumer and the need for consumers to be able to access and control others' access to their health information was clearly recognized in that report. This has been reinforced by subsequent Markle Foundation reports,[xvii] the DHHS Strategic Framework,[xii] and position statements of organizations such as the Health Information Management and Systems Society (HIMSS)[xviii] and the American Health Information Management Association (AHIMA).[xix] In addition, as individuals and families directly assume an increasing portion of the financial responsibility for health care, consumer demand for health information will increase. At present, there are no operational implementations of an "all-encompassing" PHR. Even so, the limited and growing evidence of the positive impact of PHR efforts on the quality and cost of care makes it clear that consumer access to and control of health information is a critical element of HII that must be incorporated into the planning process.

While widespread application of HIT has its own intrinsic value, it is not a panacea for all the complex and difficult problems of our health care system. Nevertheless, it is a critical prerequisite to addressing many, if not most, of the critical issues such as higher quality care, increased access, more effective chronic care delivery, and the ability to empower active consumer's participation with their own health care. The ability of HIT to both measure and intervene in the everyday processes of health care will enable ongoing design, development, implementation, and evaluation of policy initiatives to improve the quality and efficiency of care.

In view of the needs of HIIs throughout the state of Washington, Substitute Senate Bill 5064 (SSB 5064) was enacted as Chapter 261, Laws of 2005. The bill requires the Health Care Authority (HCA) to establish and collaborate with a Health Information Infrastructure Advisory Board (HIIAB). The HCA is to "develop a strategy for the adoption and use of electronic medical records and health information technologies that are consistent with emerging standards and promote interoperability of health information systems."

According to the legislation, the strategy should:

- **Be informed by the experience of others**
- **Encourage providers to adopt EMRs and HIT**
- **Enable secure online access to medical records for patients**
- **Promote the use of standards**
- **Overcome implementation obstacles**
- **Preserve privacy**

Values and Design Principles

A report of preliminary findings is required by December 1, 2005, with the final recommendations submitted by December 1, 2006. This document is the preliminary report as mandated in SSB 5064.

The HIIAB is committed to the values and design principles shown in Tables I, II, and III. These are intended to help bridge any differences and keep the effort focused and on task. They are not designed to be all-inclusive, but to serve as core benchmarks to help lead, guide, and direct the work of the HCA and the HIIAB.

I. Objectives for the Washington State Health Information Infrastructure

A. Overall Objective
Ensure the timely availability of relevant health information and decision support whenever and wherever needed to improve the health of our citizens, the quality of health care delivered and the efficiency of the health care system.

B. Required Attributes
The required attributes for the Washington State HII defined by HIIAB fall into five broad categories:
1) Policy
2) Financing
3) Governance
4) Strategy
5) Architecture

These broad categories, summarized in Table III, are interdependent and, to some extent, may be in conflict. It is recognized that compromises and trade-offs may be necessary. These required guideline attributes will be used by HIIAB to ensure critical issues are addressed.

II. Implementation Obstacles/Issues

There are challenging obstacles to overcome with the successful implementation of sustainable HIIs. Otherwise, the advantages of HII would have already led to widespread adoption and deployment of such systems. These challenges fall into five major areas:

1) Financial
2) Organizational
3) Technological
4) Privacy
5) Implementation Risk

While HII systems have many benefits, establishing and operating them will require substantial funding. Since such systems have not existed previously, either in development or in operations, there are no established funding sources.

Health care stakeholders would prefer that others assume these costs. Misaligned incentives result in requirements for investments by some stakeholders that exceed the potential benefits they could receive, making such investment highly problematic. In addition, the current reimbursement system tends to reward waste and inefficiency, providing strong economic disincentives for improving quality and efficiency. Finally, the "first mover disadvantage" effect, common to the development of all shared infrastructure, substantially penalizes any initial steps by otherwise motivated stakeholders. These funding issues will need to be defined and addressed by a realistic finance plan and business model that is workable for all health care stakeholders.

The organizational challenges of HII systems are also numerous. Since HII systems do not exist, there is no organization responsible for creating and operating HII systems. It is unclear who can or should undertake this task. As always, there is substantial resistance to changes, and the health care system has developed a tradition of competition that makes the collaboration needed for HII difficult and challenging.

A consensus has not emerged regarding specific action that is needed. Consumers and communities are not actively engaged in these issues. There are many competing priorities in both areas of health care and other domains that demand immediate attention. Finally, experience with successful community HII efforts, clearly demonstrates that a long-term plan sustained over many years will be needed.

The HIIAB process itself should help address some of these organizational issues by engaging and educating the stakeholders, highlighting the urgent need for action, and defining the specific steps required for progress. Substantial leadership and commitment beyond the HIIAB will be needed throughout Washington State to successfully develop HII systems.

Technology is also a potential obstacle. There are a number of system design issues that must be addressed in an HII such as standards, certification, interoperability, user identification, and matching patient records. Furthermore, the EHR marketplace remains quite fragmented, leaving potential purchasers confused about how to make intelligent choices. A standard HII architecture has to emerge, and no community currently has a "completely operational" system that addresses all the requirements. These issues naturally result in concerns about whether the technology is ready to support widespread HII implementation.

Privacy and confidentiality are central concerns with respect to HII systems, as explicitly recognized in SSB 5064. Without clear protections, it will not be possible to earn and maintain public confidence for a successful HII operation. This means compliance with the privacy and security provisions of the federal Health Insurance Portability and Accountability Act (HIPAA), as well as the Washington State statutes, and creation of an open and transparent process of

ongoing privacy assurance. Therefore, specific approaches to privacy protection and other legal issues must be part of the HII implementation plan.

It must be acknowledged that HII development has significant implementation risk. While there are a few models of partially operational systems in communities, there are many "lessons to be learned." No clear path to success has yet been defined, so progress requires willingness to explore new ideas and make difficult choices. Nevertheless, the clear and certain negative consequences of failing to utilize health information technology to reduce medical errors, improve the quality of care, and increase health care efficiency, seem to make prudent action an urgent imperative. By working to define a clear path for HII development with specific incremental steps, we hope to provide a realistic and practical road map for HII implementation.

III. Work Plan and Related Activities

The HIIAB will conduct periodic work sessions and additional activities in conjunction with the HCA and the expertise of the project consultant, William Yasnoff, M.D., PhD. The work sessions and activities will strive to provide comprehensive stakeholder involvement and input prior to the final step of developing recommendations.

To inform HIIAB members, and provide both background and context for their deliberations, the meetings have and will continue to include presentations related to specific HII efforts in Washington and other states. This will be further supplemented by selected background readings and other staff research, specifically including information about the history and current status of HII-related activities in Washington and elsewhere with emphasis on lessons learned. Whenever possible, these background materials are and will continue to be available on the HCA web site devoted to HIIAB activities, along with meeting schedules, agendas, and other relevant documents. The HCA web site can be accessed at: http://www.hca.wa.gov/hit/.

Additional stakeholder input beyond the HIIAB is being solicited by HCA through several mechanisms. First, a Stakeholder Advisory Committee, with broad representation from all areas of health care, is being formed and will meet periodically to review HIIAB proposals and provide feedback and input to HCA and the HIIAB. Several stakeholder-specific groups will be convened to provide additional input to the HCA and the HIIAB. Finally, town hall meetings are planned to inform, educate, and engage the community about the HIIAB and health information technology. The activities will ensure that all stakeholders are both aware of the HIIAB and have the opportunity to review and comment on proposed HIIAB recommendations. By casting a wide net and encouraging the broadest stakeholder participation, the final recommendations should be both realistic and likely to garner widespread support.

Finally, the HIIAB will develop and refine recommendations that are both specific and actionable, encompassing the areas of policy, financing, organization and governance, strategy, and architecture. During this time, it is not known to whom the recommendations will be directed, but the HIIAB believes that

extensive cooperation and collaboration among health care stakeholders, including individuals, and families will be needed to ensure a successful HII development and rapid adoption. Therefore, while some recommendations will likely relate to actions needed at the state government level, it's anticipated that additional recommendations directed at other stakeholders will be included in the final report.

The HIIAB wishes to emphasize the strong desire that its work produce tangible and immediate results. HCA and the HIIAB members are committed to developing an action plan that is both realistic and achievable, so the state of Washington can move rapidly and effectively to utilize health information technology for the benefit of all its citizens.

Values

The patient/consumer is our paramount concern.
In our deliberations, we strive for:

- **Visionary Leadership –** Address complex issues, make tough decisions, and deliver long-term, practical results.

- **Unquestioned Integrity –** Act impartially and fairly in the interest of all the people of Washington State. Seek consensus and the greater good in our decisions / recommendations by balancing differing points of view.

- **Accountability** – Focus on completing work successfully and on time with informed, deliberate and open discussions with data and analyses.

- **Openness** – Listen to all points of view, seeking input and feedback in a broad, inclusive, and timely manner.

- **Realistic Expectations** – Seek achievable outcomes that are tangible and functional.

- **Efficiency –** Focus our resources and expertise where they can achieve maximum value.

- **Effective Application of Existing Knowledge -** Build upon and leverage efforts, resources and experiences of others.

Design Principles

1. **Achievable**
   - Maximize simplicity
   - Promote tangible and functional outcomes
   - Leverage opportunities and apply best practices based on prior experience in Washington and elsewhere
   - Keep recommendations realistic (e.g. about interoperability)

2. **Consumer / User Centered**
   - Promote ease-of-use and portability
   - Promote/ provide access to information to patients/consumers in balanced ways
   - Obtain patient permission; administer access responsibly
   - Allow patient input and interaction

3. **Incremental**
   - Each step must build on existing systems and be as self-sustaining as possible
   - Maximize stakeholder consensus

4. **Ensure Security & Privacy**
   - Use trusted solutions
   - Use a trusted third party
   - Ensure integrity of data

5. **Process is Inclusive & Collaborative**
   - Promote cooperation over competition
   - Ensure proper roles for government and the marketplace

6. **Alignment of Incentives**
   - Pay for performance to achieve better outcomes
   - Maximize quality and efficiency
   - Promote consumer involvement
   - Make participation voluntary
   - Ensure sustainability
   - Work locally

Required Attributes for Washington State Health Information Infrastructure

Category I - Policy

1. Provide access to individual medical/clinical records by patients and other stakeholders
2. Ensure that patient participation is voluntary
3. Clarify liability issues
4. Ensure privacy
5. Improve efficiency

Category II - Financing

1. Determine initial and continuing funding mechanisms
2. Use metrics to demonstrate value to stakeholders
3. Assure affordability of Electronic Health Records (EHRs) for all clinicians, especially small and rural practices
4. Assure affordability of Personal Health Records (PHRs) for patients

Category III - Governance & Organization

1. Determine initial governance and organizational structure
2. Determine how HII administration and operation will be done initially and evolve appropriately over time

Category IV - Strategy

1. Provide tailored approaches for different organizations (large/small, urban/rural, etc.)
2. Identify actions and policies needed by the State (as regulator, purchaser, and payer)
3. Identify necessary & beneficial coordination with other initiatives (e.g. pay for performance, Federal activities)
4. Elucidate a plan for promoting HII adoption by all stakeholders

Category V - Architecture

1. Ensure security that enforces privacy policies
2. Ensure flexibility/reliability/maintainability/scalability
3. Ensure utilization of standards for interoperability
4. Ensure integrity/availability of information (including in disasters)

Washington State Health Care Authority
Health Information Infrastructure Advisory Board (HIIAB)
Members
Appointed August 2005

ANNEX A

Chair:
V. Marc Droppert, J.D.
Partner, Leary Franke Droppert LLC

Provider Community:
Hugh Maloney, M.D., MHA
Alexis Wilson, PhD., M.N., MPH

Information Technology Expert:
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Health Care Policy Experts:
David Masuda, M.D.
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Consumers:
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President, Washington Chapter AARP

Wendy Anne Carr
Access Coordinator, Whatcom Alliance for Health Care Access

Health Plan (Carrier) Representative:
James Hereford, MS
Executive Vice President, Strategic Services and Quality
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Washington State Health Care Authority
Health Information Infrastructure Advisory Board (HIIAB) Members
Appointed August 2005

ANNEX A

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List of Terms

ANNEX B

EHR	**Electronic Health Record**
EMR	**Electronic Medical Record**
HCA	**Washington State Health Care Authority**
HIIAB	**Health Information Infrastructure Advisory Board**
HII	**Health Information Infrastructure**
HIT	**Health Information Tchnology**
PHR	**Personal Health Record**

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